

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

10/575,537

Source:

TFWP

Date Processed by STIC:

9/21/06

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 09/21/2006

PATENT APPLICATION: US/10/575,537

TIME: 11:48:13

Input Set: A:\1034123-000219.ST25.txt

Output Set: N:\CRF4\09212006\J575537.raw

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3 <110> APPLICANT: Gallo, Richard
4     Murakami, Masamoto
6 <120> TITLE OF INVENTION: HUMAN CATHELICIDIN ANTIMICROBIAL PEPTIDES
8 <130> FILE REFERENCE: 1034123-000219
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/575,537
11 <141> CURRENT FILING DATE: 2006-04-11
13 <150> PRIOR APPLICATION NUMBER: US 60/512,953
14 <151> PRIOR FILING DATE: 2003-10-21
16 <150> PRIOR APPLICATION NUMBER: PCT/US2004/034911
17 <151> PRIOR FILING DATE: 2004-10-20
19 <160> NUMBER OF SEQ ID NOS: 34
21 <170> SOFTWARE: PatentIn version 3.3
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 11
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
29 <220> FEATURE:
W--> 30 <221> NAME/KEY: X
31 <222> LOCATION: (1)..(2)
32 <223> OTHER INFORMATION: K or R
34 <220> FEATURE:
W--> 35 <221> NAME/KEY: X
36 <222> LOCATION: (3)..(3)
37 <223> OTHER INFORMATION: I or K
39 <220> FEATURE:
W--> 40 <221> NAME/KEY: X
41 <222> LOCATION: (4)..(4)
42 <223> OTHER INFORMATION: V or G
44 <220> FEATURE:
W--> 45 <221> NAME/KEY: X
46 <222> LOCATION: (5)..(5)
47 <223> OTHER INFORMATION: Q or R
49 <220> FEATURE:
W--> 50 <221> NAME/KEY: X
51 <222> LOCATION: (6)..(6)
52 <223> OTHER INFORMATION: K or R
54 <220> FEATURE:
W--> 55 <221> NAME/KEY: X
56 <222> LOCATION: (7)..(7)
57 <223> OTHER INFORMATION: any amino acid
59 <220> FEATURE:
W--> 60 <221> NAME/KEY: X
61 <222> LOCATION: (8)..(8)

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62 <223> OTHER INFORMATION: L or F
64 <220> FEATURE:
W--> 65 <221> NAME/KEY: X
66 <222> LOCATION: (9)..(11)
67 <223> OTHER INFORMATION: any amino acid
69 <400> SEQUENCE: 1
W--> 71 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
72 1 5 10
75 <210> SEQ ID NO: 2
76 <211> LENGTH: 11
77 <212> TYPE: PRT
78 <213> ORGANISM: Homo sapiens
80 <400> SEQUENCE: 2
82 Lys Arg Ile Val Gln Arg Ile Lys Asp Val Phe
83 1 5 10
86 <210> SEQ ID NO: 3
87 <211> LENGTH: 8
88 <212> TYPE: PRT
89 <213> ORGANISM: Homo sapiens
91 <400> SEQUENCE: 3
93 Arg Lys Ser Lys Glu Lys Ile Gly
94 1 5
97 <210> SEQ ID NO: 4
98 <211> LENGTH: 8
99 <212> TYPE: PRT
100 <213> ORGANISM: Homo sapiens
102 <400> SEQUENCE: 4
104 Lys Ser Lys Glu Lys Ile Gly Lys
105 1 5
108 <210> SEQ ID NO: 5
109 <211> LENGTH: 739
110 <212> TYPE: DNA
111 <213> ORGANISM: Homo sapiens
113 <400> SEQUENCE: 5
114 taaagcaaac cccagccac accctggcag gcagccaggg atgggtggat caggaaggct 60
116 cctggttggg cttttgcatc aggctcaggc tgggcataaa ggaggctcct gtgggctaga 120
118 gggaggcaga catggggacc atgaagaccc aaagggatgg ccactccctg gggcggtggg 180
120 cactggtgct cctgctgctg ggcctggtga tgcctctggc catcattgcc caggtcctca 240
122 gctacaagga agctgtgctt cgtgctatag atggcatcaa ccagcgggtcc tcggatgcta 300
124 acctctaccg cctcctggac ctggacccca ggcccacgat ggatggggac ccagacacgc 360
126 caaagcctgt gagcttcaca gtgaaggaga cagtgtgccc caggacgaca cagcagtcac 420
128 cagaggattg tgacttcaag aaggacgggc tggatgaagcg gtgtatgggg acagtgacct 480
130 tcaaccaggc caggggctcc tttgacatca gttgtgataa ggataacaag agatttgccc 540
132 tgctgggtga tttcttccgg aaatctaaag agaagattgg caaagagttt aaaagaattg 600
134 tccagagaat caaggatttt ttgcggaatc ttgtacccag gacagagtcc tagtgtgtgc 660
136 cctaccctgg ctcaggcttc tgggctctga gaaataaact atgagagcaa tttcaaaaaa 720
138 aaaaaaaaaa aaaaaaaaaa
141 <210> SEQ ID NO: 6
142 <211> LENGTH: 170

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Input Set : A:\1034123-000219.ST25.txt

Output Set: N:\CRF4\09212006\J575537.raw

143 &lt;212&gt; TYPE: PRT

144 &lt;213&gt; ORGANISM: Homo sapiens

146 &lt;400&gt; SEQUENCE: 6

148 Met Lys Thr Gln Arg Asn Gly His Ser Leu Gly Arg Trp Ser Leu Val

149 1 5 10 15

152 Leu Leu Leu Leu Gly Leu Val Met Pro Leu Ala Ile Ile Ala Gln Val

153 20 25 30

156 Leu Ser Tyr Lys Glu Ala Val Leu Arg Ala Ile Asp Gly Ile Asn Gln

157 35 40 45

160 Arg Ser Ser Asp Ala Asn Leu Tyr Arg Leu Leu Asp Leu Asp Pro Arg

161 50 55 60

164 Pro Thr Met Asp Gly Asp Pro Asp Thr Pro Lys Pro Val Ser Phe Thr

165 65 70 75 80

168 Val Lys Glu Thr Val Cys Pro Arg Thr Thr Gln Gln Ser Pro Glu Asp

169 85 90 95

172 Cys Asp Phe Lys Lys Asp Gly Leu Val Lys Arg Cys Met Gly Thr Val

173 100 105 110

176 Thr Leu Asn Gln Ala Arg Gly Ser Phe Asp Ile Ser Cys Asp Lys Asp

177 115 120 125

180 Asn Lys Arg Phe Ala Leu Leu Gly Asp Phe Phe Arg Lys Ser Lys Glu

181 130 135 140

184 Lys Ile Gly Lys Glu Phe Lys Arg Ile Val Gln Arg Ile Asp Asp Phe

185 145 150 155 160

188 Leu Arg Asn Leu Val Pro Arg Thr Glu Ser

189 165 170

192 &lt;210&gt; SEQ ID NO: 7

193 &lt;211&gt; LENGTH: 519

194 &lt;212&gt; TYPE: DNA

195 &lt;213&gt; ORGANISM: Homo sapiens

197 &lt;400&gt; SEQUENCE: 7

198 atgcagttcc agaggacgt cccctccctg tggctgtggc ggtcactatc actgctgctg 60

200 ctactgggcc tggggttctc ccagaccccc agctacaggg atgctgtgct ccgagctgtg 120

202 gatgacttca accagcagtc cctagacacc aatctctacc gtctcctgga cctggatcct 180

204 gagccccaag gggacgagga tccagatact cccaagtctg tgagggttccg agtgaaggag 240

206 actgtatgtg gcaaggcaga gcggcagcta cctgagcaat gtgccttcaa ggaacagggg 300

208 gtggtgaagc agtgtatggg ggcagtcacc ctgaaccggg ccgctgattc ttttgacatc 360

210 agctgtaacg agcctgggtc acagcccttt cggttcaaga aaatttcccg gctggctgga 420

212 cttctccgca aaggtgggga gaagattggt gaaaagctta agaaaattgg ccagaaaatt 480

214 aagaattttt ttcagaaact tgtccctcag ccagagtag 519

217 &lt;210&gt; SEQ ID NO: 8

218 &lt;211&gt; LENGTH: 173

219 &lt;212&gt; TYPE: PRT

220 &lt;213&gt; ORGANISM: murine

222 &lt;400&gt; SEQUENCE: 8

224 Met Gln Phe Gln Arg Asp Val Pro Ser Leu Trp Leu Trp Arg Ser Leu

225 1 5 10 15

228 Ser Leu Leu Leu Leu Gly Leu Gly Phe Ser Gln Thr Pro Ser Tyr

229 20 25 30

232 Arg Asp Ala Val Leu Arg Ala Val Asp Asp Phe Asn Gln Gln Ser Leu

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TIME: 11:48:13

Input Set : A:\1034123-000219.ST25.txt

Output Set: N:\CRF4\09212006\J575537.raw

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233          35          40          45
236 Asp Thr Asn Leu Tyr Arg Leu Leu Asp Leu Asp Pro Glu Pro Gln Gly
237          50          55          60
240 Asp Glu Asp Pro Asp Thr Pro Lys Ser Val Arg Phe Arg Val Lys Glu
241 65          70          75          80
244 Thr Val Cys Gly Lys Ala Glu Arg Gln Leu Pro Glu Gln Cys Ala Phe
245          85          90          95
248 Lys Glu Gln Gly Val Val Lys Gln Cys Met Gly Ala Val Thr Leu Asn
249          100          105          110
252 Pro Ala Ala Asp Ser Phe Asp Ile Ser Cys Asn Glu Pro Gly Ala Gln
253          115          120          125
256 Pro Phe Arg Phe Lys Lys Ile Ser Arg Leu Ala Gly Leu Leu Arg Lys
257          130          135          140
260 Gly Gly Glu Lys Ile Gly Glu Lys Leu Lys Lys Ile Gly Gln Lys Ile
261 145          150          155          160
264 Lys Asn Phe Phe Gln Lys Leu Val Pro Gln Pro Glu Gln
265          165          170
268 <210> SEQ ID NO: 9
269 <211> LENGTH: 172
270 <212> TYPE: PRT
271 <213> ORGANISM: canine
273 <400> SEQUENCE: 9
275 Met Glu Thr Gln Lys Asp Ser Pro Ser Leu Gly Arg Trp Ser Leu Leu
276 1          5          10          15
279 Leu Leu Leu Leu Gly Leu Val Ile Thr Pro Ala Ala Ser Arg Ala Leu
280          20          25          30
283 Ser Tyr Arg Glu Ala Val Leu Arg Ala Val Asn Gly Phe Asn Gln Arg
284          35          40          45
287 Ser Ser Glu Glu Asn Leu Tyr Arg Leu Leu Gln Leu Asn Ser Gln Pro
288          50          55          60
291 Lys Gly Asp Glu Asp Pro Asn Ile Pro Lys Pro Val Ser Phe Thr Val
292 65          70          75          80
295 Lys Glu Thr Val Cys Pro Lys Thr Thr Gln Gln Pro Leu Glu Gln Cys
296          85          90          95
299 Gly Phe Lys Asp Asn Gly Leu Val Lys Gln Cys Glu Gly Thr Val Ile
300          100          105          110
303 Leu Asp Glu Asp Thr Gly Tyr Phe Asp Leu Asn Cys Asp Ser Ile Leu
304          115          120          125
307 Gln Val Lys Lys Ile Asp Arg Leu Lys Glu Leu Ile Thr Thr Gly Ala
308          130          135          140
311 Gln Lys Ile Gly Lys Lys Ile Arg Arg Ile Gly Gln Arg Ile Lys Asp
312 145          150          155          160
315 Phe Leu Lys Asn Leu Gln Pro Arg Glu Glu Lys Ser
316          165          170
319 <210> SEQ ID NO: 10
320 <211> LENGTH: 172
321 <212> TYPE: PRT
322 <213> ORGANISM: porcine
324 <400> SEQUENCE: 10

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Input Set : A:\1034123-000219.ST25.txt

Output Set: N:\CRF4\09212006\J575537.raw

```

326 Met Glu Thr Gln Arg Ala Ser Leu Cys Leu Gly Arg Trp Ser Leu Trp
327 1 5 10 15
330 Leu Leu Leu Leu Ala Leu Val Val Pro Ser Ala Ser Ala Gln Ala Leu
331 20 25 30
334 Ser Tyr Arg Glu Ala Val Leu Arg Ala Val Asp Arg Leu Asn Glu Gln
335 35 40 45
338 Ser Ser Glu Ala Asn Leu Tyr Arg Leu Leu Glu Leu Asp Gln Pro Pro
339 50 55 60
342 Lys Ala Asp Glu Asp Pro Gly Thr Pro Lys Pro Val Ser Phe Thr Val
343 65 70 75 80
346 Lys Glu Thr Val Cys Pro Arg Pro Thr Arg Gln Pro Pro Glu Leu Cys
347 85 90 95
350 Asp Phe Lys Glu Asn Gly Arg Val Lys Gln Cys Val Gly Thr Val Thr
351 100 105 110
354 Leu Asn Pro Ser Ile His Ser Leu Asp Ile Ser Cys Asn Glu Ile Gln
355 115 120 125
358 Ser Val Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro
359 130 135 140
362 Pro Pro Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe
363 145 150 155 160
366 Pro Pro Arg Phe Pro Pro Arg Phe Pro Gly Lys Arg
367 165 170
370 <210> SEQ ID NO: 11
371 <211> LENGTH: 176
372 <212> TYPE: PRT
373 <213> ORGANISM: goat
375 <400> SEQUENCE: 11
377 Met Glu Thr Gln Gly Ala Ser Leu Ser Leu Gly Arg Trp Ser Leu Trp
378 1 5 10 15
381 Leu Leu Leu Leu Gly Leu Val Val Pro Leu Ala Ser Ala Gln Ala Leu
382 20 25 30
385 Ser Tyr Arg Glu Ala Val Leu Arg Ala Val Gly Gln Leu Asn Glu Arg
386 35 40 45
389 Ser Ser Glu Ala Asn Leu Tyr Arg Leu Leu Glu Leu Asp Pro Ala Pro
390 50 55 60
393 Asn Asp Glu Val Asp Pro Gly Thr Arg Lys Pro Val Ser Phe Thr Val
394 65 70 75 80
397 Lys Glu Thr Val Cys Pro Arg Thr Thr Gln Gln Pro Pro Glu Glu Cys
398 85 90 95
401 Asp Phe Lys Glu Asn Gly Leu Val Lys Gln Cys Val Gly Thr Val Thr
402 100 105 110
405 Leu Asp Pro Ser Asn Asp Gln Phe Asp Ile Asn Cys Asn Glu Leu Gln
406 115 120 125
409 Ser Val Arg Phe Arg Pro Pro Ile Arg Arg Pro Pro Ile Arg Pro Pro
410 130 135 140
413 Phe Asn Pro Pro Phe Arg Pro Pro Val Arg Pro Pro Phe Arg Pro Pro
414 145 150 155 160
417 Phe Arg Pro Pro Phe Arg Pro Pro Ile Gly Pro Phe Pro Gly Arg Arg
418 165 170 175

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/575,537

DATE: 09/21/2006  
TIME: 11:48:14

Input Set : A:\1034123-000219.ST25.txt  
Output Set: N:\CRF4\09212006\J575537.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. ~~1,2,3,4,5,6,7,8,9,10,11~~

## VERIFICATION SUMMARY

DATE: 09/21/2006

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TIME: 11:48:14

Input Set : A:\1034123-000219.ST25.txt

Output Set: N:\CRF4\09212006\J575537.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:30 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:35 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:40 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:45 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:50 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:55 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:60 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:65 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:71 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0